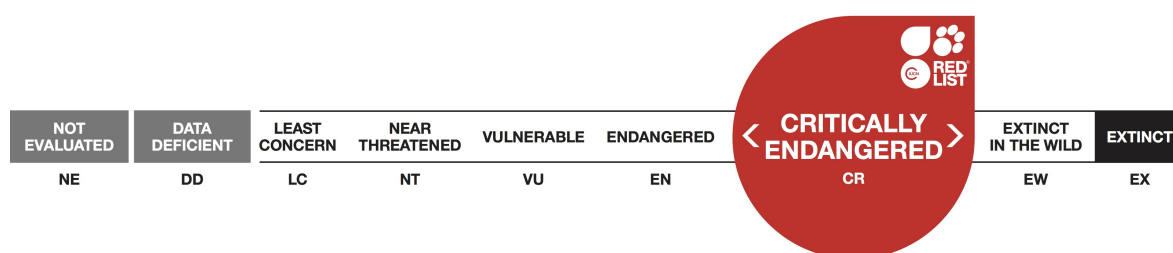


## *Pittosporum muricatum*

**Assessment by:** Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, D., Gâteblé, G. & Maggia, L.



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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Rosales	Pittosporaceae

**Taxon Name:** *Pittosporum muricatum* Tirel & Veillon

**Taxonomic Source(s):**

Tirel, Ch. and Veillon, J.-M. 2002. *Flore de la Nouvelle-Calédonie, tome 24. Pittosporaceae*. Museum d'Histoire Naturelle, Paris.

## Assessment Information

**Red List Category & Criteria:** Critically Endangered C2a(i,ii) [ver 3.1](#)

**Year Published:** 2017

**Date Assessed:** July 23, 2015

**Justification:**

*Pittosporum muricatum* is an endemic small tree of New Caledonia known from Col de Mouirange and Port-Boisé in Province Sud. Found in dense humid forest on ultramafic substrate patches at an altitudinal range 15-350 m asl, *P. muricatum* is considered a rare species. The latest field observations at both well known localities suggest an estimated population size fewer than 250 mature individuals (each subpopulation not exceeding 50 individuals). Primary threats are fire, fruit predation by rats and effects of mining activities, causing a continuous decline of habitat quality and number of individuals. Using criterion C, *P. muricatum* qualifies for listing as Critically Endangered (CR) C2a(i,ii).

**Previously Published Red List Assessments**

1998 – Endangered (EN)

<http://dx.doi.org/10.2305/IUCN.UK.1998.RLTS.T35275A9917324.en>

1998 – Endangered (E)

## Geographic Range

**Range Description:**

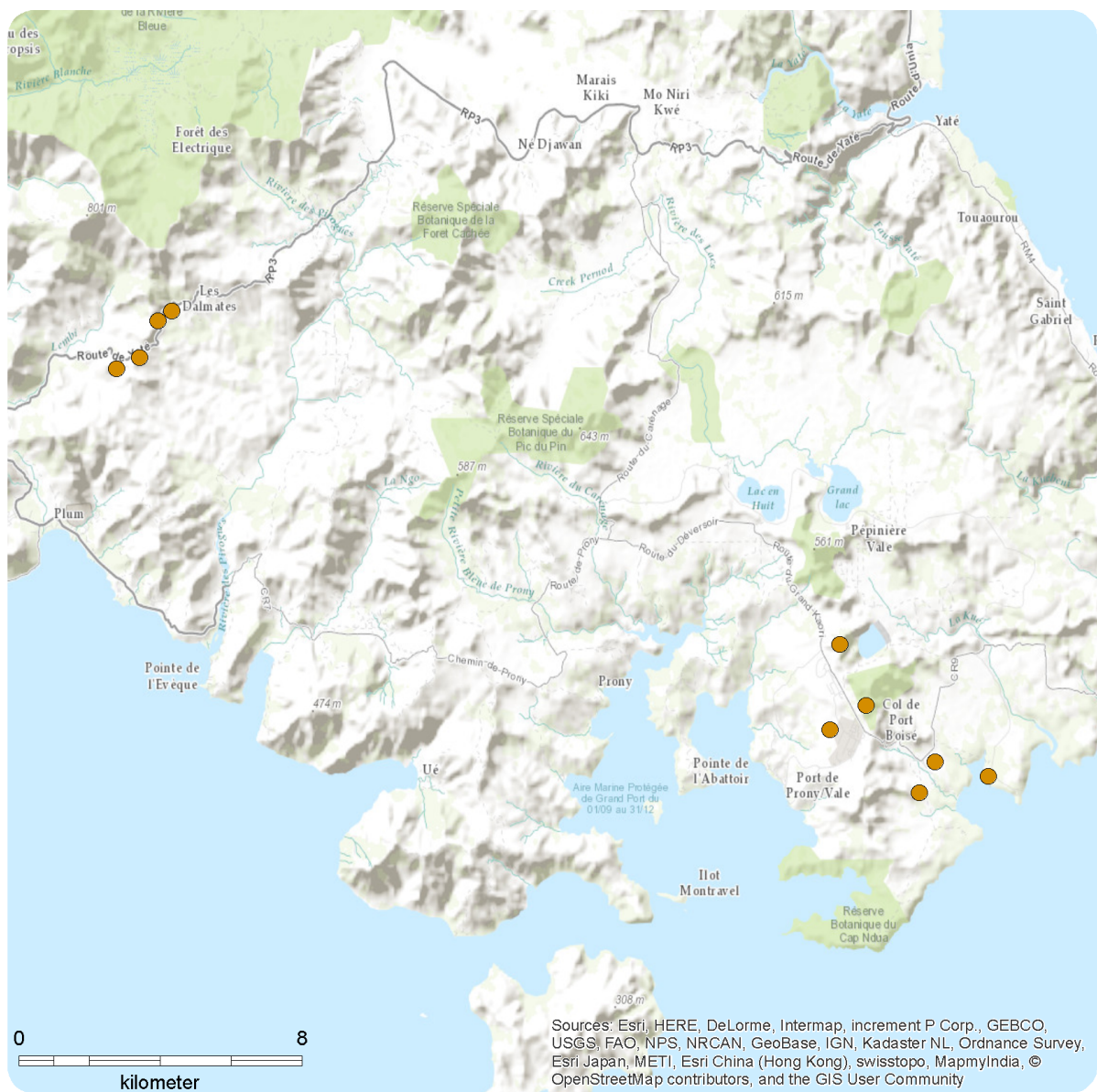
*Pittosporum muricatum* is an endemic small tree of New Caledonia known from Col de Mouirange and Port-Boisé in Province Sud.

**Country Occurrence:**

**Native:** New Caledonia

# Distribution Map

*Pittosporum muricatum*



Range

- Extant (resident)

Compiled by:

IUCN SSC New Caledonia Plants RLA



## Population

Due to its distribution and density observed by station, population size is estimated to be fewer than 250 mature individuals.

**Current Population Trend:** Decreasing

## Habitat and Ecology (see Appendix for additional information)

*Pittosporum muricatum* is found in dense humid forest on ultramafic substrate patches at an altitudinal range 15-350 m asl.

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

The main threats to this species are fire, mining activities and induced drying up on ferrallitic soil. Some case of fruit predation by rats on Vale mine have been observed and could also be a threat in the wild.

## Conservation Actions (see Appendix for additional information)

A protected species in Province Sud, *Pittosporum muricatum* has also been noticed in réserve naturelle de la Forêt Nord. In order to maximize protection efforts of *P. muricatum*, it is essential to count the population in réserve naturelle de la Forêt Nord, to monitor this population, and survey surrounding areas to determine area of occurrence. Propagation of wild collected fruits trials done by Vale showed a good germination rate. However, of growing concern is the predation on fruits by rats, which are able to reach fruits despite protection by a metal net. Vale company stopped field collecting of fruits for two years but continue monitoring six individuals. To improve taxonomic knowledge of New Caledonian species of *Pittosporum*, further phylogenetic studies are needed to clarify the relationship between *P. muricatum* and *P. leratii*.

## Credits

**Assessor(s):** Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, D., Gâteblé, G. & Maggia, L.

**Reviewer(s):** Tanguy, V.

**Contributor(s):** McCoy, S.

**Facilitators(s) and Compiler(s):** Chanfreau, S.

## Bibliography

Endemia.nc. 2016. Faune et Flore de Nouvelle-Calédonie. Available at: <http://www.endemia.nc>.

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Tirel, Ch. and Veillon, J.-M. 2002. *Flore de la Nouvelle-Calédonie, tome 24. Pittosporaceae*. Museum d'Histoire Naturelle, Paris.

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## External Resources

For [Images and External Links to Additional Information](#), please see the Red List website.

# Appendix

## Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-

## Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
7. Natural system modifications -> 7.3. Other ecosystem modifications	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Unspecified Rattus)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		

## Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes
Invasive species control or prevention: No
In-Place Species Management
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No

## Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Research Needed</b>
1. Research -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends

## Additional Data Fields

<b>Distribution</b>
Estimated area of occupancy (AOO) (km <sup>2</sup> ): 32
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 90
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 2
Continuing decline in number of locations: No
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 15
Upper elevation limit (m): 350
<b>Population</b>
Number of mature individuals: 50-249
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
Extreme fluctuations in subpopulations: No
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 0

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